

Promoting and Protecting the Health of the Public and the Environment

Bureau of Environmental Health Services

Environmental Affairs

Promoting and Protecting the Health of the Public and the Environment

Bureau of Environmental Health Services

- What we do
 - Regional Offices
 - Programs
 - Environmental Laboratories

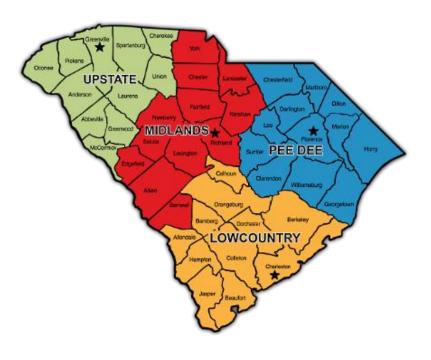




Bureau of Environmental Health Services

- The Bureau of Environmental Health Services (BEHS) manages and implements the Onsite Wastewater, Rabies Prevention, Food Protection, Dairy and Manufactured Food, Laboratory Certification, and Emergency Response (including Oil, Chemical and Nuclear) programs and manages the Environmental Laboratory
- BEHS regional office staff perform statewide inspections, sampling, monitoring and complaint investigations for the Bureaus of Air Quality, Land and Waste Management and Water

Environmental Regional Offices



- Upstate
 - Anderson, Greenwood, Walhalla
 - Greenville, Spartanburg
- Midlands
 - Columbia, Rock Hill, Lancaster
 - Aiken
- Pee Dee
 - Sumter, Florence
 - Conway, Myrtle Beach
- Lowcountry
 - Charleston
 - Beaufort, Orangeburg

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Environmental Health ServicesRegional Offices

- Inspect permitted facilities
- Conduct ambient monitoring
- Respond to complaints
- Investigate animal bites
- Provide compliance assistance
- Issue food & septic tank permits
- Monitor shellfish harvesting areas
- Conduct environmental surveillance activities
- Respond to environmental emergencies





Inspection, Monitoring and Complaint Responsibilities

- Air
- Solid Waste
- Hazardous Waste
- Wastewater
- Drinking Water
- Recreational Waters
- Stormwater
- Dams
- Bulk Petroleum Terminals

- Mining & Reclamation
- Underground Tanks
- Shellfish
- Agricultural Wastewater
- Beaches
- Retail Food & Dairy
- Septic Tanks
- Rabies
- Emergency Response



Citizen Complaints

- Thousands of complaints received from the public each year
- Some complaints fall within agency jurisdiction but some do not
- Response is needed for most complaints to determine if they are actionable
- Public expects DHEC to "fix" everything

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Citizen Complaint Examples

- Sewage on property
- Grey water
- Sanitary sewer overflow
- Illegally installed septic systems
- Garbage
- Odors
- Public and private pools
- Polluted drinking water
- Bed bugs
- Burning leaves
- Deer processing
- Egg sales / "Polluted" Eggs
- Illegal food venders

- Leaking USTs
- Algae growth in lakes
- Tire dumps
- Mud on roadways
- Sinkholes
- Junk yards
- Mosquitoes
- Dead birds
- Overgrown yards
- Dog/cat hoarding
- Porta potties
- Feathers on road from trucks
- Meth labs
- Bottled water

- Malfunctioning gas pumps
- Sludge spreading
- Right of way spraying
- Road debris
- Animal bites
- Nuisance wildlife
- Rotten food
- Children living in unsanitary conditions
- Lyme disease
- Chicken houses
- Raw milk consumption



FY 2015 Complaint Summary By Major Category

9,567 Citizen Complaints

Air Quality	1,088
Land / Waste	758
Water	2,265
Food	4,006
Onsite Wastewater	1,293
General	157

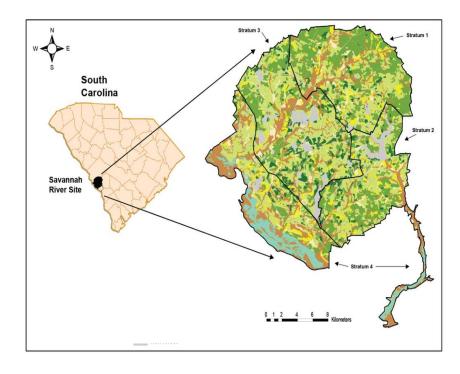
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Environmental Surveillance and Oversight Program (ESOP)

- Supports & compliments
 DHEC's regulatory programs at
 Savannah River Site (SRS)
- Evaluates the effectiveness of SRS monitoring activities
- Non regulatory monitoring of surface water, air, groundwater, soil, sediment, vegetation, fish milk, drinking water

Operates out of Aiken office

Savannah River Site (SRS)





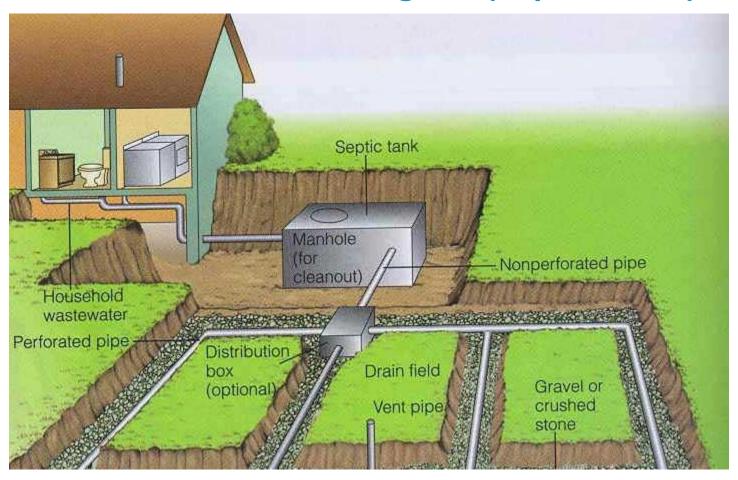
BEHS Program Activities

- Onsite Wastewater
- Food Protection
- Milk & Dairy Products
- Rabies
- Nuclear Response & Emergency Environmental Surveillance
- Emergency Response
- Radon



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Onsite Wastewater Program (Septic Tanks)





Onsite Wastewater Management - FY2015

- 9,962 new sites were evaluated for septic tank systems in FY 2015, resulting in 8,496 permits
- 5,076 systems were actually installed by applicants
- 906 licensed septic tank contractors and 276 pumpers and haulers
- 121 approved septic tank manufacturers



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Food Protection Program





Food Protection Program Facilities

- Retail Food Establishments
- Ice Manufacturing Plants
- Soft Drink Bottling Plants
- Manufacturing, Distributing, and the Sale of Frozen Dairy Foods and Frozen Desserts
- Milk and Milk Products
- Imitation Milk, Imitation Milk Products, Products Made in Semblance of Milk and Milk Products



Food Protection Program

- Conducts surveillance and response for foodborne illness outbreaks
- Inspects retail food establishments statewide for uniformity and consistency in applying the regulation
- Permits new retail food establishments
- Provides training on food safety and how to reduce the occurrence of foodborne illness risk factors



Food Protection Program

2015 Numbers

21,776 Routine Inspections

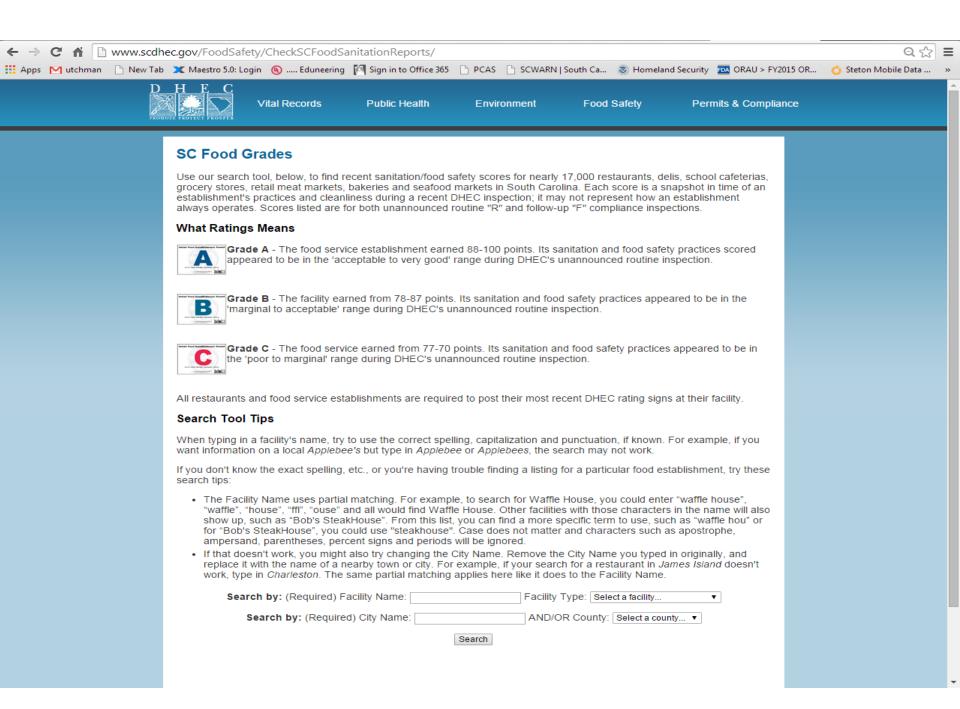
9,400 Follow-Ups

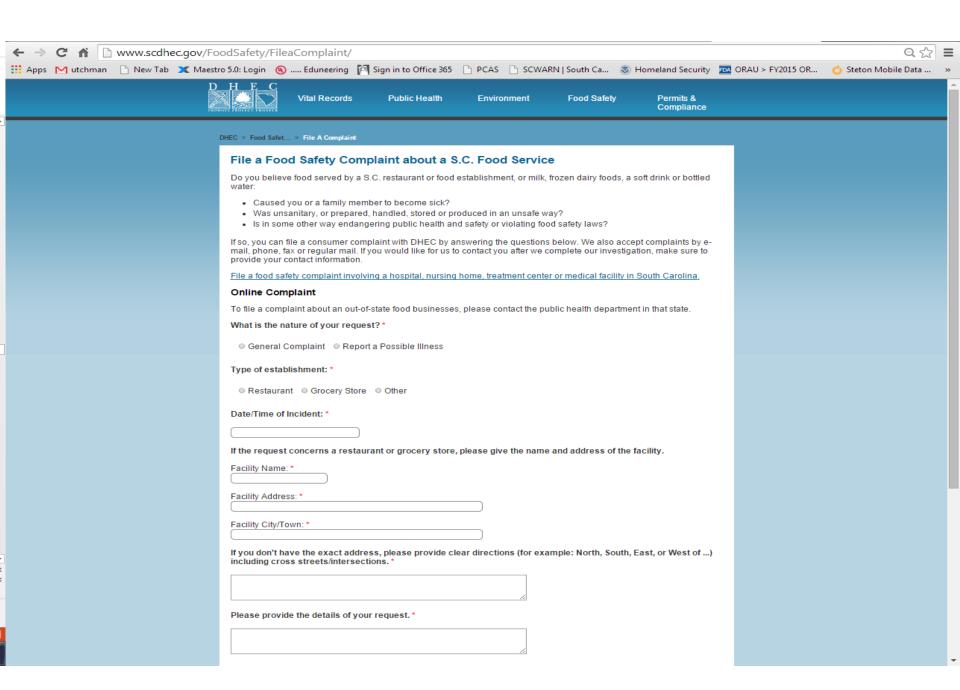
4,006 Total Complaints

747 Foodborne Illness Complaints

15 Foodborne Outbreaks

2,686 Permits







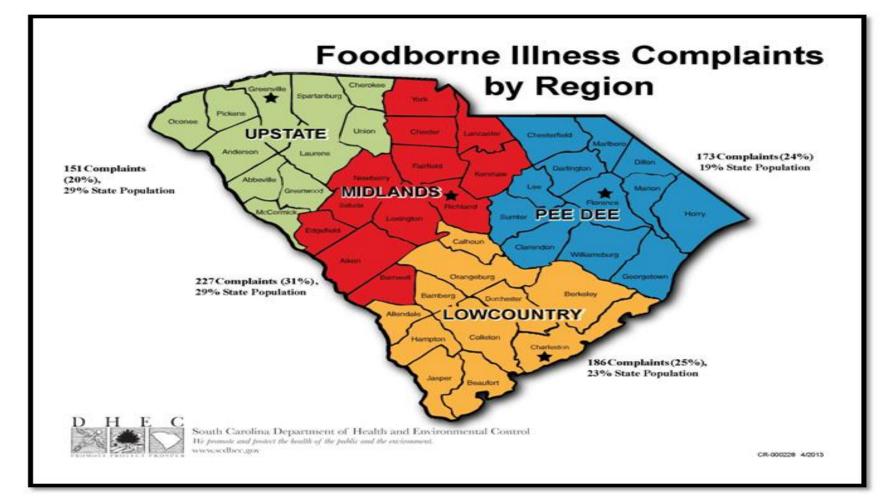
Foodborne Outbreaks

- DHEC follows a nationally recognized foodborne outbreak protocol which includes a partnership of Epidemiology, Laboratory & Environmental Health
- Enteric outbreaks can be caused by food, water, animal contact or by person-to-person contact; good team based investigation is critical
- Since not all enteric outbreaks turn out to be foodborne,
 each must be investigated to determine cause



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2015:Complaints by Region





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Dairy and Manufactured Foods



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Dairy and Manufactured Food Program



- Inspects and samples dairy farms, plants, and distribution centers in accordance with the National Conference on Interstate Milk Shipments
- Milk produced and processed in South Carolina may be placed into interstate commerce
- Inspects bottled water, soft drinks, cheese, frozen desserts and ice plants under contract from the US Food and Drug Administration

Dairy Food and Soft Drink Protection Program

Program Inventory	2015
Grade A Dairy Farms	56
Grade A Raw (Human Consumption) Goat Dairies	11
Grade A Raw (Human Consumption) Sheep Dairies	1
Grade A Raw (Human Consumption) Cow Dairies	10
Grade A Milk Pasteurization Plants	8
Frozen Dessert Manufacturers	12
Single-Service Milk Container/Closure Manuf.	8
Milk/Frozen Dessert Distributors	31
Milk Haulers/Samplers	37
Dairy Plant Samplers	28
Milk Tankers	33
Butter Manufacturers	2
Cheese Manufacturers	13

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Dairy and Manufactured Food Program

- 12 Soft Drink / Bottled Water Manufacturing Plants
- 21 Wholesale Packaged Ice Manufacturing Plants
- 207 Registered Ice Vending Locations











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Rabies Prevention





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Rabies Prevention Program

- Rabies is a viral disease that attacks nerve and brain tissue
- The virus is transmitted from the saliva of a rabid animal to a healthy animal or human through a bite, cut or scratch
- Rabies has a near 100% fatality rate







Rabies Prevention Program

- DHEC conducted 12,801 initial investigations of potential rabies exposure with 12,021 follow-up investigations involving both wild and domesticated animals in 2015
- Tested 1,867 animal heads for rabies in FY 2015: 1,671 tested negative, 130 tested positive and 66 unable to test
- In SC, wild animals account for the highest number of reported cases (raccoons, foxes, skunks, and bats)





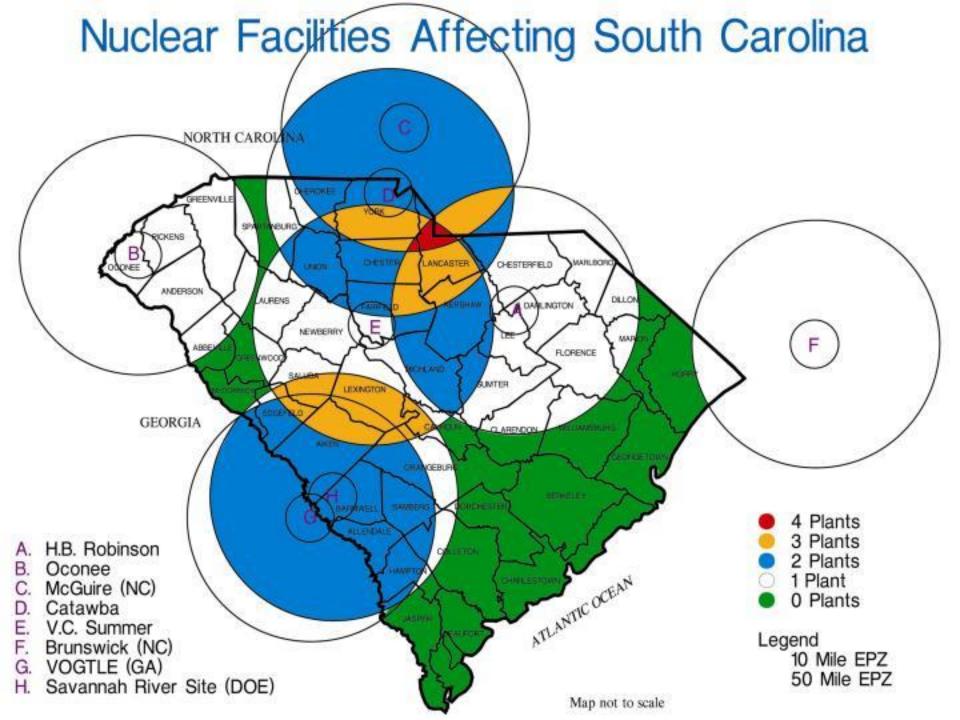
Preparedness and Emergency ResponseCoordination

- Coordinates activities between Environmental Affairs and other DHEC Deputy Areas to address the Agency's preparedness for man-made and natural disasters to include terrorism and weapons of mass destruction incidents
- Coordinates Environmental Affairs' emergency response activities, to include terrorism events, with other State and Federal response/planning agencies

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Nuclear Response and Emergency Environmental Surveillance

- Coordinates the State Technical Radiological Response plan with SC Emergency Management Division and provides response teams for all nuclear incidents at:
 - Four SC Commercial Fixed Nuclear Facilities
 - One SC Fuel Fabrication Facility
 - One GA Fixed Nuclear Facility
 - Two NC Fixed Nuclear Facilities
 - The Department of Energy (DOE) Savannah River Site
 - The Naval Nuclear Training Unit Charleston
- Staff are active members of the security team with SLED on Foreign Spent
 Nuclear Fuel Shipments and other selected DOE Transportation Campaigns





Nuclear Response 2015

- Incident notifications: 2
- Courtesy notifications: 7
- Communication drills and nuclear response exercises: 25
- Bureau of Environmental Health Services provides and coordinates technical liaisons to:
 - state and county emergency operations centers
 - joint public information centers
 - the facility emergency operation center
- Train first responders state-wide in basic radiological health physics and emergency response

Emergency Response





Emergency Response

Oil and Chemical Emergency Response:

- Maintains a twenty four (24) hour/seven (7) days a week field response capability to environmental emergencies
- Coordinates the response of DHEC and other agencies in responding to spills and releases of petroleum and hazardous chemicals
- Trains DHEC personnel in response safety, hazards awareness and containment/removal technologies
- Investigates fish kills



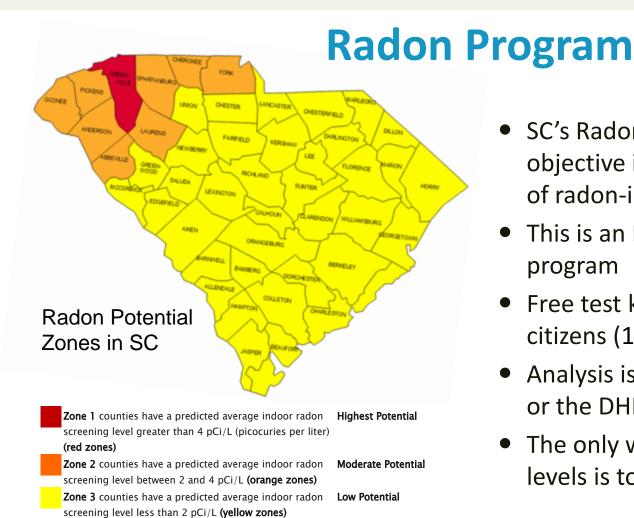
2015 Emergency Response Activities

Oil, HazMat Spills & Fish Kills

Calls to 24 Hour Phone Number	2,863
Oil Spills	613
Hazardous Materials Spills	106
Other Spills	86
Fish Kills	36
Hazardous Materials Exercises	8



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- SC's Radon Program's primary objective is to reduce the number of radon-induced lung cancer cases.
- This is an EPA funded outreach program
- Free test kits are provided for citizens (1362 radon kits requested)
- Analysis is done by commercial lab or the DHEC environmental labs
- The only way to determine radon levels is to test



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Environmental Labs





Environmental Laboratories

- Conducts monitoring, sample analysis, data management
- Provides validated data meeting quality control requirements for environmental decision-making to DHEC, EPA & public
- Certifies public & private environmental laboratories (drinking water & wastewater plants, industries & commercial laboratories)
- Responsible for DHEC's Quality Management Program



Analytical & Radiological Environmental Services

- Microbiological and chemical analysis of drinking water, wastewater, streams, lakes, ocean water, soil, fish, leachate, chemical waste, shellfish, milk, and other dairy products
- In 2015, performed 143,409 analyses on 18,554 samples
- Provides data to the public, EPA and Environmental Affairs programs
- Provides technical support to DHEC staff

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Analytical & Radiological Environmental Services (cont'd.)

- Analyzes samples of drinking water, surface water, air, milk, fish, vegetation, and soils around nuclear facilities to throughout the state
- Maintains a mobile rad lab for radiological emergencies or special investigations
- In 2015, performed 70,728 radiological analyses on 2814 samples



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Air Quality Analysis

- Monitors SC ambient (outdoor) air through a network of 32 monitoring stations across the state
- Monitors for particulate concentrations like dust & haze, and gaseous pollutants including ozone and air toxics
- Annually:
 - Over 350,000 hourly measurements for criteria pollutants & precursors
 - Over 3,600 samples for criteria pollutants
 - Analysis for more than 10,000 measurements in 1,300
 air toxics samples





Environmental Laboratory Certification

- Certifies approximately 532 public and private laboratories, in and out-of-state
- Evaluates in-state labs on a three year cycle including on-site visits
- Determines adherence to federally approved methodology, quality control protocols, record keeping, and reporting practices
- Provides technical support to certified laboratories & environmental programs on analytical methods and data reporting



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Environmental Health Services

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